"First and final"

M. A. R. 57 (Rule 116)
Measurement Book

No. B

251245

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Name of the Work :- Improvements to roads at Kottaramma temple surroundings area in ward no-10 (Poddabommasandra) vidyaranpura Sub division.						
	Estimated cost :- Rs 35.00 Lackhs.						
	Job number :- 010-18-000048, Head of Account :- P1878.						
	Name of the Contract :- Executive ENGINEER, KRIDL, #280, 5th cross road, 17th 'C' main road, 3rd 'A' block, Rajajinagara. Bangalore-560010.						
	Work order No :- BBMP/EE/BTD/WO/60/2018-19 Dated :- 23-07-2018.						

Reference to last Measurement

8

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	(1) Earthwork Excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, Excavated surface levelled and sides neatly dressed the disposed earth to be levelled neatly after breaking of clods etc complete as per specifications and directions of ws in charge of the work. As per premeasurement wide of MB No-2513 of page No-25297					100.80 m^3	
			@ Rs. 199.36				Rs 20095=00
	(2) providing and laying in position plain cement concrete of mix 1:4:8, with OPC cement @ 180 kgs with 40mm and down size graded granite metal coarse aggregate @ 0.85 cum and fine aggregate @ 0.57 cum, machine mixed concrete laid in layers not exceeding 15cms thick well compacted in foundations and finish including cost of materials, labour, use of machinery, curing etc., complete as per specifications. As per premeasurement wide of MB No-2513 of page No-25298					75.60 m^3	

M. A
Me

Serial No. .....
Name of Work ..... From
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Number
1	2	3
		nel
	(1) Cement concrete pavement Ec[illegible] in rule pavement thickness as per cement (or) any other type as per with 25 mm and down size granit with superplasticizer @ 3 lts contro mixed in a concrete mixer complete Kempanna Lo 1st qly -	1 × 3
		1 × 3

NT BOOK

ensions		Contents	Reference to last Measurement
Breadth 5	Depth 6	7	8
ordinary soil involving an average lift upto 0.5m, Excavated earth to be levelled disposed as per specifications and directions			
		100.80m³	
Rs. 199.36			Rs 20095=00
concrete of mix 1:4:8, with OPC cement granite metal coarse aggregate 40mm, machine mixed concrete well compacted in foundations above 1500 m of machinery, carriage etc.			
		75.60m³	
no-251298			

M. A. R. 57 (Rule 116)
Measurement Book

No. B

251246

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Full description, etc, of work 2	Dimensions Number 3	Length 4	Breadth 5	Depth 6	Contents 7	Reference to last Measurement 8
	net quantity				=	75.60m³
					@Rs. 5159.02	Rs 390022=00
1) Cement concrete pavement Construction of un-reinforced plain cement concrete pavement thickness as per design, over a prepared sub base with OPC cement (or) any other type as per clause 1051.2.2 design mix M20/M30, with 25mm and down size granite metal coarse aggregates and fine aggregates with superplasticizer @ 3 lts conforming to IS 9103-1999 Reaffirmed-2008, mixed in a concrete mixer complete as per specifications complete.						
Kempanna 4th qly -	1	30	$\frac{(4.1+4.0)}{2}$	0.125	=	15.19m³
	1	30	$\frac{(4.0+4.0)}{2}$	0.125	=	15.00m³

30.19.

BOOK

ons		Contents	Reference to last Measurement
Breadth 5	Depth 6	7	8
inary soil involving an average lift upto 0.5m, Excavated disposed earth to be leveled for spreadings and dressing			
			$100.80 m^3$
199.36			Rs 20095=00
concrete of mix 1:4:8, with OPC cement granite metal coarse aggregate, machine mixed concrete well compacted in foundations, including machinery, carriage etc.			$75.60 m^3$
251298			

M. A. R. 57 (Rule 116)
Measurement Book

No. B

251246

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Full description, etc, of work 2	Dimensions Number 3	Length 4	Breadth 5	Depth 6	Contents 7	Reference to last Measurement 8
	net quantity				=	$75.60 m^3$
					@Rs. 5159.02	Rs 390022=00
Cement concrete pavement Construction of un-reinforced plain cement concrete pavement thickness as per design, over a prepared sub base with OPC (or) any other type as per clause 1051.2.2 design mix M20/M30, 25 mm and down size granite metal coarse aggregates and fine aggregates with superplasticizer @ 3 lts conforming to IS 9103-1999 reaffirmed-2008, using a concrete mixer complete as per specifications complete. Length up to 1st qty	1	30	$\frac{(4.1+4.0)}{2}$	0.125	=	$15.19 m^3$
	1	30	$\frac{(4.0+4.0)}{2}$	0.125	=	$15.00 m^3$

30.19.

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		30-19
1	2	3	4	5	6	7	8
		1×	5.80×((4.0+4.1)/2)×0.125 =				2.94 m³
		1×	30×((4.1+4.1)/2)×0.125 =				15.38 m³
	KNV 1st lay 1st class	1×	29.50×((4.1+4.0)/2)×0.125 =				14.93 m³
			Net Quantity			=	63.43 m³
			Quantity limited to			=	63.00 m³
			@ Rs. 5508.81				Rs 347056=00

(4) Vacuum de-watering with vacuum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, Honda machinery, screed vibratory, power floater, blade and disc etc., complete as per specifications and direction of Engineer complete.

M. A
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Serial No. .....
Name of Work ..... From
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Number
1	2	3
	CAF Mehta	1×
		1×
		1×
		1×
		1×

BOOK

ns		Contents	Reference to last Measurement
adth 5	Depth 6	7	30-19 8
.0+4.1)/2		×0.125 =	2.94 m³
1+4.1)/2		×0.125 =	15.38 m³
4.1+4.0)/2		×0.125 =	14.93 m³
nentity		=	63.43 m³
limited to		=	63.00 m³
2. 5508.81		Rs 34705	6=00
p and Suction mat and Compaction			
c including cost of generator,			
ater, blade and disc etc.,			
i complete.			

M. A. R. 57 (Rule 116)
Measurement Book

No. B

251247

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Full description, etc, of work 2	Dimensions				Contents 7	Reference to last Measurement 8
	Number 3	Length 4	Breadth 5	Depth 6		
	1×	30×	(4.1+4.0)/2	=	121.50 m²	
	1×	30×	(4.0+4.0)/2	=	120.00 m²	
	1×	5.8×	(4.0+4.1)/2	=	23.49 m²	
	1×	30×	(4.1+4.1)/2	=	123.00 m²	
	1×	29.5×	(4.1+4.0)/2	=	119.48 m²	
			Net total	=	507.47 m²	

CAF
Mehta

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Quality limited to					= 504.00 m^2	
			@ 95.40				Rs 48082=00
(5)	Wet mix macadam KSRRB M400-17: providing laying, spreading and compacting crushed stone aggregates of granite/trap/basalt to wet mix macadam specifications including premixing the material with water @ OMC in mechanical mix plant carriage of mixed material to site laying in uniform layers with pavers in sub base-/base course as well prepared surface and compacting with vibratory roller to achieve the desired density etc.. complete as per specifications and direction of ws complete .. As per pre measurement wide of MB NO-2513 & Page NO-251298 & 251299						414.00 m^3
			@ Rs.1768.08				Rs 731985=00
(6)	Cleaning the existing black topped surface with brooms - soft brushed dry						

M.A. I
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Serial No. .....

Name of Work ..... From..

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Date	Full description, etc, of work	Number
1	2	3
	and finally dusting with old gr the bituminous treatment includ machinery etc., complete as per measurements & quantity are same as that of Items No- en mention here near Aparna apartments-	1x 1x 1x 1x

NT BOOK

Dimensions			Contents	Reference to last Measurement
	Breadth 5	Depth 6	7	8
			= 504.00 m²	
				Rs 48082=00
5.40				
viding layers, Spreading and				
rite/Grep/basalt to wet mix				
ing the material with water (a)				
mixed method to stipe to site				
base-/base course compact				
rolling roller to achieve the				
specifications and direction of				
299}				414.00 m²
Rs.1768.08				Rs 731985=00
tale with brooms - soft brushed dry				

M. A. R. 57 (Rule 116)
Measurement Book

No. B

251248

Name of the .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Full description, etc, of work 2	Dimensions				Contents 7	Reference to last Measurement 8
	Number 3	Length 4	Breadth 5	Depth 6		
finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials, labour, tools & machinery etc., complete as per specifications and directions of engineer in charge. Quantities & Quality are same as that of Items No- [illegible] in motion here [illegible]	1x	30x	(5.6+5.5)/2	=	166.55 m²	
	1x	30x	(5.5+5.4)/2	=	163.50 m²	
	1x	30x	(5.4+5.6)/2	=	165.00 m²	
	1x	30x	(5.6+5.5)/2	=	166.50 m²	

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		1×	30×	$\left(\frac{5.5+5.5}{2}\right)$		= 165.00 m^2	
		1×	30×	$\left(\frac{5.5+5.4}{2}\right)$		= 163.50 m^2	
		1×	30×	$\left(\frac{5.4+5.6}{2}\right)$		= 165.00 m^2	
		1×	30×	$\left(\frac{5.6+5.5}{2}\right)$		= 166.50 m^2	
		1×	10.30×	$\left(\frac{5.5+5.5}{2}\right)$		= 56.65 m^2	
		1×	30×	$\left(\frac{5.1+5.9}{2}\right)$		= 180.00 m^2	
		1×	30×	$\left(\frac{5.9+5.8}{2}\right)$		= 175.50 m^2	

Page No. .....
Name of Work .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	N
1	2	
	CAF menus	

NT BOOK

ensions		Contents	Reference to last Measurement
Breadth 5	Depth 6	7	8
$\left(\frac{5.5+5.5}{2}\right)$	=	165.00 m^2	
$\left(\frac{5.5+5.4}{2}\right)$	=	163.50 m^2	
$\left(\frac{5.4+5.6}{2}\right)$	=	165.00 m^2	
$\left(\frac{6+5.5}{2}\right)$	=	166.50 m^2	
$\left(\frac{5.5+5.5}{2}\right)$	=	56.65 m^2	
$\left(\frac{6.1+5.9}{2}\right)$	=	180.00 m^2	
$\left(\frac{5.9+5.8}{2}\right)$	=	175.50 m^2	

M. A. R. 57 (Rule 116)
Measurement Book

No. B

251249

Page No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Full description, etc, of work 2	Dimensions				Contents 7	Reference to last Measurement 8
	Number 3	Length 4	Breadth 5	Depth 6		
	~~1×~~	30×	$\left(\frac{6.0+6.1}{2}\right)$	=	181.50 m^2	
	~~1×~~	30×	$\left(\frac{5.8+6.0}{2}\right)$	=	177.00 m^2	
	~~1×~~	30.8×	$\left(\frac{6.1+6.0}{2}\right)$	=	186.34 m^2	
	Net quantity			=	2278.49 m^2	
	quantity limited to			=	2275.00 m^2	
		@	Rs 3.18		Rs 7235=00	

CFC
Menus

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	(7) providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces @ 2.5 kg per 10 sqm. heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, tools & machineries etc., complete as per specifications and directions of M. incharge of the work. measurements & quantity are same as that of item No- (6)					2275.00 m²	
						Rs 26527=00	
						@ Rs. 11.66	
	(8) KSHB M500-17. providing and laying dense graded bituminous macadam using crushed aggregates of specified grading premixed with VG30 grade bitumen as binder and transporting the hot mix to work site laying to the required grade, level and alignment, rolling with smooth wheeled vibratory and tandem rollers to acheive the desired compaction as per MORTH Table 500-10, complete in all respects (complete as per specifications. Near approach ramps) -	1 ×	30 ×	$\left(\frac{5.6+5.5}{2}\right)$	× 0.05 = 8.33 m³		

Date	Full description, etc, of work	Number
1	2	3
		1 ×
		1 × 3
		1 × 3
		1 ×
		1 ×
		1 ×

NT BOOK

ensions		Contents	Reference to last Measurement
Breadth 5	Depth 6	7	8
80/100 grade bitumen (VG10) or the 10 sqm. heating bitumen in boiler & road surface) including cost of etc., complete as per specifications		2275.00 m²	
s. 11.66			Rs 26527=00
use graded bitumen coarse aggregate premixed with VG30 grade mix to work site laying to the lly with smooth wheeled vibratory compaction as per MORTH Table as per specifications.			
5.6+5.5 / 2) x 0.05 = 8.33 m³			

M. A. R. 57 (Rule 116)
Measurement Book

No. B

251250

Book No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Full description, etc, of work 2	Dimensions				Contents 8.33 7	Reference to last Measurement 8
	Number 3	Length 4	Breadth 5	Depth 6		
	1 x	30 x	(5.5+5.4)/2	x 0.05	= 8.18 m³	
	1 x	30 x	(5.4+5.6)/2	x 0.05	= 8.25 m³	
	1 x	30 x	(5.6+5.5)/2	x 0.05	= 8.33 m³	
	1 x	30 x	(5.5+5.5)/2	x 0.05	= 8.25 m³	
	1 x	30 x	(5.5+5.4)/2	x 0.05	= 8.18 m³	
	1 x	30 x	(5.4+5.6)/2	x 0.05	= 8.25 m³	

57.80

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth	57.80	
1	2	3	4	5	6	7	8
		1 ×	30 ×	$\left(\frac{5.6+5.5}{2}\right)$	× 0.05 = 8.33 m³		
		1 ×	10.3 ×	$\left(\frac{5.5+5.5}{2}\right)$	× 0.05 = 2.83 m³		
		1 ×	30 ×	$\left(\frac{6.1+5.9}{2}\right)$	× 0.05 = 9.00 m³		
		1 ×	30 ×	$\left(\frac{5.9+5.8}{2}\right)$	× 0.05 = 8.78 m³		
		1 ×	30 ×	$\left(\frac{5.8+6.0}{2}\right)$	× 0.05 = 8.85 m³		
		1 ×	30 ×	$\left(\frac{6.0+6.1}{2}\right)$	× 0.05 = 9.08 m³		
		1 ×	30.8 ×	$\left(\frac{6.1+6.0}{2}\right)$	× 0.05 = 9.32 m³		
						(13.99)	

CAF
Mehta

Full description, etc, of work

2

Net Quantity

Quantity li

1. K SRRB/A 500-17. providing an
supply Crushed aggregates of spec
bitumen binder, and from po
required grade, level and
rollers and tandem rollers,
IRC 300-10, complete in all res

OOK

Depth 6	Contents 7	Reference to last Measurement 8
5)	x0.05 = 8.33 m³	
.5)	x0.05 = 2.83 m³	
)	x0.05 = 9.00 m³	
8)	x0.05 = 8.78 m³	
)	x0.05 = 8.85 m³	
)	x0.05 = 9.08 m³	
5.0)	x0.05 = 9.32 m³	
		113.99

M. A. R. 57 (Rule 116)
Measurement Book

No. B

251251

Page for .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Full description, etc, of work 2	Dimensions: Number 3	Length 4	Breadth 5	Depth 6	Contents 7	Reference to last Measurement 8
Net Quantity				=	113.92 m³	
Quantity limited to				=	113.75 m³	
			@Rs. 7176.20		Rs 816293=00	

P. K. ~~SRRB M 500-17. providing and laying dense graded bituminous macadam~~ ~~Crushed aggregates of specified grading, premixed with VG 30, grade~~ ~~bituminous binder, and transported the hot mix to work site, laying to~~ ~~required grade, level and alignment, rolling with smooth wheeled~~ ~~vibrators and tandem rollers, to achieve the desired compaction, as per MORTH~~ ~~Table 500-10, complete in all respects, complete as per specification No. 507~~

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	~~Using 40/60 TPH Capacity A.M.P with sensor paver 60-11 (50mm to 75mm) with 4.5-1.V 6-30 Bitumen.~~						
	(9) KS 4B 500-7: providing and applying tack coat using 80/100 grade bitumen (VG 10) on the prepared black topped surfaces @ 2.5 kg per 10 sqm. heating bitumen in boiler fitted with spray set (excluding cost of materials) complete as per specifications. measurement and quantity are same as that of item no-(7)					2275.00 m²	
		@ Rs 11.66				Rs 26527=00	
	(10) providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregate of specified grading premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and allignment,						

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

Date	Full description, etc, of work	Num
	2	3
	alling with smooth wheel	
	achieve the desired compaction	
	mplete in all respects complete	
	.509- using 40/60 TPH Capa	
	50mm to 75mm with 6% VG	
	ecification and direction	
	Adhoora apartments -	1
	Katarangama temple	1
		1

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
		1×	30×	(5.6+5.5)/2	×0.04	= 6.66m³	1980
		1×	30×	(5.5+5.5)/2	×0.04	= 6.60m³	
		1×	30×	(5.5+5.4)/2	×0.04	= 6.54m³	
		1×	30×	(5.4+5.6)/2	×0.04	= 6.60m³	
		1×	30×	(5.6+5.5)/2	×0.04	= 6.66m³	
		1×	10.30×	(5.5+5.5)/2	×0.04	= 2.27m³	
		1×	30×	(6.1+5.9)/2	×0.04	= 7.20m³	
							62.33

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18/02

MR 7512 11/11/19

BOOK

...ns		Contents	Reference to last Measurement
...eadth 5	Depth 6	7	1980 8
...6+5.5)/2	×0.04 = 6.66m³		
...5+5.5)/2	×0.04 = 6.60m³		
...5+5.4)/2	×0.04 = 6.54m³		
...4+5.6)/2	×0.04 = 6.60m³		
...8+5.5)/2	×0.04 = 6.66m³		
...5.5+5.5)/2	×0.04 = 2.27m³		
...1+5.9)/2	×0.04 = 7.20m³		
			62-33

M. A. R. 57 (Rule 116)
Measurement Book

No. B

251253

...No. .....
...of Work ..... From..... To.....
...of Contractor of nature of Agency .....
...of commencement of work .....

Full description, etc, of work 2	Dimensions Number 3	Length 4	Breadth 5	Depth 6	Contents 62-33 7	Reference to last Measurement 8
	1×30×((5.9+5.8)/2)×0.04 = 7.02m³					
	1×30×((5.8+6.0)/2)×0.04 = 7.08m³					
	1×30×((6.0+6.1)/2)×0.04 = 7.26m³					
	1×30.8×((6.1+6.0)/2)×0.04 = 7.45m³					
	Net Quantity				= 91.14m³	

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CAFC
18/02

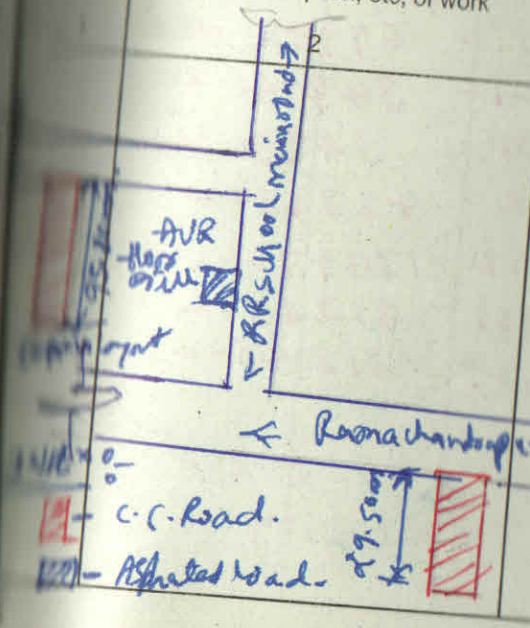
MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Quality limited te				=	91.00 m³	
	@ Rs. 8118.54					Rs 738787=00	
	Total		—			Rs 3152609=00	
	KRIDL charges @ 10% Rs					315261=00	
	labour cess @ 1% Rs					31526=00	
	Grand total		—			Rs 3499393=00	
	Bhuvaneshwari					26/9/2018	

Assistant Executive Engineer
Byatarayanapura Sub-Division
KRIDL, BBMP, Bangalore

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency
Date of commencement of work .....

Date	Full description, etc, of work	
1	2	



MENT BOOK

Dimensions			Contents	Reference to last Measurement
Length 4	Breadth 5	Depth 6	7	8
te		=	91.00 m3	
Rs.	8118.54		Rs 73878.[illegible]	
tal		—	Rs 315260.[illegible]	
RDL charges @ 10%			Rs 31526.[illegible]	
labour cess @ 1%			Rs 3152[illegible]	
d total		—	Rs 349939.[illegible]	
			26/9/2018	

M. A. R. 57 (Rule 116)
Measurement Book

No. B

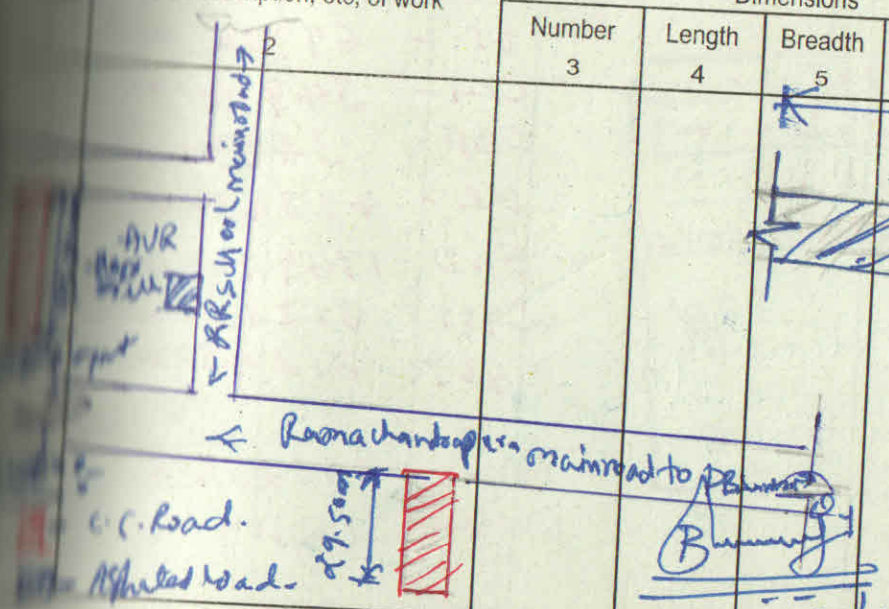
251254

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
2	Number 3	Length 4	Breadth 5	Depth 6	7	8
			401.10 m.			
					Near Katarovma temple road	
					26/9/18	



26/9

MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
				Total Rs.		34,99,393-00	
					LT -	69988-00	
					CCI -	34994-00	
					CBF -	3499-00	
					LR -	42343-00	
					FSD -	174970-00	
					CGST -	31245-00	
					SGST -	31245-00	
				Adjn.		388284-00	
				Cheque:		31,11,109-00	

ಬಿಲ್ಲು ಮೊಬಲಗು ರೂ. 34,99,393-00
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ಬಾ... ಕಾರ್ಯಪಾಲಕ ಅ...